

**Canadian Pharmacy Technician Educators Association
(CPTEA)**

**Summary Report of the Development of
Educational Outcomes for Pharmacy Technician
Programs in Canada**

March 2007

Acknowledgements

The CPTEA Outcomes Working Group appreciates the time, thought, and support for this initiative offered by stakeholders across Canada. Every effort has been made to accurately capture the intent of the responses and to create a consensus of opinion. The Working Group recognizes and respects that all responses reflect the viewpoint of the individuals or of the organization and that these viewpoints are in the spirit of an open and transparent consultation process.

This report on the development of national outcomes for pharmacy technician programs in Canada and the seven educational outcomes is submitted by Rock Folkman, President CPTEA, on behalf of the Working Group for the Development of National Educational Outcomes for Pharmacy Technician Programs.

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Educational Outcomes for Pharmacy Technician Programs in Canada

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Educational Outcomes for Pharmacy Technician Programs in Canada

Introduction

Pharmacy technicians have been an integral part of the pharmacy team in Canada for over thirty years. As in the early years, today many continue to join the pharmacy team through informal, on-the-job training or through employer-structured educational programs, however, in more recent years, formal training at post-secondary educational programs has become a more common entry point. Pharmacy technicians enter practice from these programs having met different outcomes and having had learning opportunities and assessments that are quite diverse. While this diversity can meet local contexts, it causes undesirable variability in program requirements and learning results.

Stakeholders, recognizing this diversity, identified to the Canadian Pharmacy Technician Educators Association, CPTEA, (an affiliation group open to educators from across Canada) that entry-level pharmacy technician programs would benefit from having predictable, relevant, realistic, understandable, and consistent educational outcomes. The CPTEA responded to stakeholder requests by developing these national educational outcomes. These educational outcomes complement the entry-to-practice competency profiles of regulatory authorities such as the National Association of Pharmacy Regulators and its members (NAPRA, 2007) and of the Ontario College of Pharmacists (OCP, 2003). These outcomes provide a benchmark for curriculum design and program structure for colleges, institutions, or other entities involved in the training of future pharmacy technicians. They offer a framework of the requirements needed by pharmacy technicians to graduate from entry-to-practice programs and may be useful for individuals already in practice to identify their ongoing learning needs. They are an important step in the evolution of the technician role.

National educational outcomes structuring the essential learning required by graduates upon entry to practice, wherever they have been educated and trained, provide consistency for programs both inter-provincially and intra-provincially. They help to define program-specific strategies for curriculum design, instructional methods, and assessment of learning; and, they support program sustainability and renewal. National educational outcomes can be used in determining requirements for and in selecting appropriate faculty. They can be used when identifying the financial and physical resources required to deliver the program at an acceptable level of quality. Outcomes can inform initial program approval, ongoing accreditation by national bodies, and entry-to-practice examinations.

Systematic processes for initial program approval and program accreditation are desirable for education/training programs. National educational outcomes help frame program accreditation, which is an external determination that a program meets, requires improvement to meet, or does not meet the defined standards and related educational requirements. A transparent program accreditation process that is based on consistent outcomes enables prospective students, regulatory authorities, professional associations, and employers to review the results of the accreditation process and to make informed decisions about program quality.

Having national outcomes permits the development of entry-to-practice examinations that reflect a national perspective. Such examinations can help assure employers about the qualifications of prospective employees and may provide a mechanism for intra-provincial and inter-provincial job mobility (provisional upon the entry-to-practice requirements of the jurisdiction).

Process Used to Develop the Educational Outcomes

At the June 2004 conference and general meeting, CPTEA members outlined two major goals for the evolution of pharmacy technician education: the development of national educational outcomes and the development and implementation of a national program accreditation process. In January 2006, the CPTEA executive, at the request of an internal sub-group exploring the possibility of educational outcomes, established a working group to develop national educational outcomes for pharmacy technicians. This group was comprised of one pharmacy technician educator from Alberta and one from Saskatchewan, one representative from the Ontario College of Pharmacists, and a pharmacist educator who was familiar with the accreditation for pharmacist education programs. The working group outlined a three-step developmental process: creation of draft educational outcomes for consultation, consultation with key stakeholder groups and individuals, and following refinement, finalization of the educational outcomes.

The working group drafted eight assumptions about abilities that graduates from an accredited pharmacy technician program should demonstrate. These assumptions reflect beliefs about the abilities required for evolving pharmacy technician practice. Using these assumptions, the working group summarized, as seven educational outcomes, the essential knowledge, skills, and attitudes required for graduation from pharmacy technician programs

The working group reviewed two existing competency profiles and one educational standard that are relevant to pharmacy technician education and training: *Competencies for the Pharmacy Technician*, (Canadian Association of Pharmacy Technicians of Alberta, 2004), the *Pharmacy Technician Competency Profile* (Ontario College of Pharmacists, 2003), and the *Pharmacy Technician Program Standard* (Ministry of Training, Colleges and Universities, Ontario 1998). After comparing these documents, which had been developed in different jurisdictions, at different times, and under different mandates, the working group determined that there were strong similarities among the documents' role competencies and outcomes, they were relevant to diverse practice settings, and since they had been developed through comprehensive stakeholder input and consultation they were a strong foundation for national educational outcomes. Building on the documents' consultation and using their content similarities, the working group incorporated the outcomes and competencies into the seven educational outcomes that were presented to stakeholders through a cross-Canada consultation process.

The seven educational outcomes consolidate the essential characteristics that graduates from pharmacy technician programs will need at entry into practice. They form a basis for educational programs' curriculum development and renewal, and can be used for program approval, program accreditation, and entry-to-practice examination processes. They are intended to be flexible, yet comprehensive, and supportive and relevant to pharmacy practice. National outcomes, when used by educational programs, will enable graduates to work in diverse pharmacy practice settings (community, hospital, long-term care, and related fields such as insurance, computer software, and pharmaceutical companies). Together with entry-to-practice competencies developed by regulatory authorities (NAPRA, 2007 and OCP, 2003) and the overall requirements for entry-to-practice, they may support/assist graduates to move to/from Canadian jurisdictions other than the one in which they were educated and trained.

Discussions about and iterations of the eight assumptions and the seven outcomes were done using two teleconferences and through multiple electronic consultations. Members of the working group reviewed the outcomes from educational, accreditation, and regulatory perspectives, as well as from their knowledge of and experience with outcomes-based education. In May 2006 the working group submitted draft educational outcomes to the CPTEA executive committee and invited their comments. Following presentation to the executive committee, the working group shared the draft with the CPTEA membership during their conference and general meeting in Red Deer, Alberta, June 2-4, 2006. The members revised then unanimously endorsed the educational outcomes for consultation with key stakeholders.

As part of the consultation process, CPTEA working group sent the educational outcomes to a stakeholder community that included publicly and privately funded colleges, provincial regulatory authorities and the National Association of Pharmacy Regulatory Authorities (NAPRA), and national and provincial professional associations including the Canadian Association of Pharmacy Technicians (CAPT), Canadian Society for Hospital Pharmacists (CSHP), Canadian Pharmacists Association (CPhA), and the Canadian Association of Chain Drug Stores (CACDS). The consultation package included an introductory letter, a consultation document outlining the background, assumptions, and outcomes, including a glossary of terms. The responders were asked to use guided questions to frame their comments and suggestions; however, they could elect to respond in a general, global manner. Four questions were asked. Two questions gathered general information, i.e., requested demographic information (responders provided their names and/or the name of the individual or body, association, organization, or college) and asked for permission to use information collected (responders identified whether or not this demographic information could be collected and whether identification of the responders' comments could be made). The third question asked responders to consider five items regarding the outcomes' overall relevance, forward-thinking nature, and reflection of safe practice, whether they were realistic, understandable, and measurable and appropriate to pharmacy technician practice, and whether there were outcomes that should be revised, added, or removed. The fourth question, invited responders to comment about the outcomes overall. Responders, with few exceptions, answered the consultation through electronic means.

Abilities of Graduates of Accredited Pharmacy Technician Programs *

Assumptions

The eight assumptions respect that the graduates' practice role differs from that of other healthcare professionals, in particular, that of the pharmacist. The graduates' practice is consistent with their education, training, and experience and complies with legal and ethical parameters and established standards, policies, and procedures of the provincial jurisdiction and specific workplace in which they practise. Graduates of pharmacy technician programs have demonstrated that they can safely and competently perform technical, distributive, and information-gathering aspects related to the preparation and release of pharmaceutical products. They are able to perform their workplace responsibilities including those actions, where permitted, that are defined in provincial legislation or in other regulatory statements for pharmacy technicians. The outcomes' content with their focused knowledge and skills reflect role differences. Furthermore, role differences will be made clear by the learning and assessment opportunities that are made available to learners in their education and training.

Pharmacy technician programs provide education and training that support current practice roles and the knowledge, skills, attitudes, and values necessary to permit graduates to fill emerging roles and, where enabled by legislation, to take on expanded roles. Program faculty should use these outcomes as the foundation of the program curriculum and structure and should ensure that the program is congruent with regulatory authority approved entry-to-practice competency profiles for pharmacy technicians, for example the competency profiles developed by the National Association of Pharmacy Regulatory Authorities (2007) and by the Ontario College of Pharmacists (2003).

Planning, Implementing, and Evaluating Abilities

Graduates:

1. Perform safely and competently the technical and distributive aspects of preparing and releasing pharmaceutical products as permitted by legislation, professional standards, practice guidelines and expectations, and applicable policies and procedures.

2. Exercise professional judgement related to the technical and distributive aspects of receiving prescriptions, gathering information, and preparing pharmaceutical products for release.
3. Recognize those practice situations in which decisions and actions must involve the pharmacist; those decisions and actions in which consultation with the pharmacist or, where appropriate, with other pharmacy technicians should occur; and, those that can be undertaken independently. Pharmacy technicians exercise critical-thinking and decision-making skills and judgement to differentiate among these three practice situations.

Knowledge and Thinking Abilities

Graduates:

4. Use critical-thinking, problem-solving, and decision-making skills appropriate to the pharmacy technician role. Critical thinking is the foundation for making safe and patient-focused decisions. This process integrates theory, practice, and experience; results in thoughtful observations and assessments; recognizes similarities, differences, and changes in context and situations; and, brings these together into a whole. Graduates use a problem solving process that combines critical-thinking and decision-making skills to gather information, consider the import of that information, determine relevant actions, carry out these actions, and evaluate results within a framework of focused knowledge, skills, and attitudes. Decision-making, as practised by pharmacy technicians, involves questioning effectively, seeking guidance and information, incorporating information, and selecting those options that result in safe and competent technician practice.

Graduates collaborate with the pharmacist in the preparation and release of pharmaceutical products by applying focused knowledge of pharmacology, therapeutics, anatomy, physiology, and common medical conditions. They apply knowledge of correlations between major drug classifications and medications (trade and generic names) and their common reasons for use. They are aware of the drug's general adverse effects and interactions and their common dosage forms, strengths, and routes. They perform accurate calculations and take the necessary steps to verify these. They gather information, update records, and perform appropriate business-related skills. They ask about and notify the pharmacist of known drug allergies and alerts and they inform the pharmacist of the patients and patients' agents need for consultation.

Pharmacy technicians use their skills consistent with their level of education, training, experience, and parameters of their practice.

Interpersonal and Communication Abilities

Graduates:

5. Communicate and work with groups and individuals (patients or their agents, pharmacists, other pharmacy technicians, pharmacy team members, and other healthcare providers) to support optimal patient care and to promote health. They initiate and respond to written, oral, and non-verbal communication using suitable and effective strategies. When communicating, pharmacy technicians consider the specific needs of their audience and the parameters of the technician role. They use appropriate, effective, and collegial interpersonal skills when working as a team member.

Values and Ethical Principles

Graduates:

6. Apply ethical principles and respect personal values in professional and social contexts and in their decision-making. Their behaviour respects the diversity of patients, patients' agents, and of the healthcare team. They take responsibility and accept accountability for their own actions.

Self-Directed Learning Abilities

Graduates:

7. Commit to lifelong learning, that is, to identify needs, resources, implement plans, and evaluate their learning activities and opportunities. They reflect on and enhance their practice by using self-assessment, seeking feedback from others, using learning resources such as those found in evidence-based practice, and by transferring their learning to practice. Graduates engage in professional development, learning and developmental activities, projects, and challenges as part of their professional and personal growth, and participate in their workplace quality assurance activities.

Professional Identity and Being An Informed Citizen

Graduates:

8. Act within the parameters of the pharmacy technician role as outlined by relevant legislation, and where established, the professional standards and practice expectations, and the applicable policies and procedures of the practice setting. They promote patient health and well being by being informed, active, and responsible members of their profession and of the general citizenry.

* These statements about the abilities required by pharmacy technician graduates have been adapted from the *General Outcomes Required of a University Graduate and Educated Citizen and Necessary for the Fulfillment of the Professional Outcomes Required for Pharmacy Graduates (Educational Outcomes for a Baccalaureate Pharmacy Graduate in Canada)*, Association of Faculties of Pharmacy of Canada, 1998).

Framework of the Educational Outcomes Document

There are seven educational outcomes. In order to graduate, learners in pharmacy technician programs must demonstrate that they can safely and competently perform the technical, distributive, and information-gathering aspects related to the preparation and release of pharmaceutical products in practice settings in the community, hospitals, and other organized health care facilities. It is the responsibility of the program to provide learners with appropriate learning opportunities and assessment strategies so that by the completion of the learners' course of studies, the program can confirm that graduates have met the technical, distributive and information-gathering knowledge, skills, and values/attitudes as outlined by the outcomes.

The seven outcomes synthesize the knowledge, skills, and attitudes underlying safe and competent practice. Each outcome is a broad statement of role performance that reflects the essential learning and performance required to graduate from entry-level pharmacy technician programs. With each of the seven outcomes, there are outcome descriptors. These outcome descriptors are a comprehensive but not an exhaustive description of the essential knowledge, skills, and attitudes that the learners must develop and demonstrate.

The educational outcomes:

1. Reflect the key concepts about the essential learning, upon which Canadian pharmacy technician educational programs should be developed and measured. The educational outcomes incorporated in this document outline the broad-based, essential knowledge, skills, attitudes, and values required at the pharmacy technician's point of the entry into practice, whether in community, hospital, long-term care, or other pharmacy sectors. They set the foundation for professional growth through lifelong learning. It is believed that while graduates must meet these educational outcomes, the outcomes are not restrictive: programs can provide learning opportunities that exceed the required level of

- knowledge, skills, or attitudes or can have additional outcomes as defined by legislative parameters and professional standards.
2. Create benchmarks, which when applied as the basis of program approval/program accreditation, will enable an external agency or body to assess programs for consistency of curricula, delivery, and evaluation of the educational outcomes.
 3. Respect provincial differences in pharmacy technician practice.
 4. Integrate knowledge, skills, and attitudes found in existing regulatory and professional competency profiles and in provincial standards for the regulation of post-secondary institutions.
 5. State the essential learning as performance based success in acquiring the knowledge, skills, and attitudes to enter practice. They describe the learning needed for the current and for an expanded professional role and frame the knowledge, skills, attitudes, required to fulfill these roles, wherever enabling legislation and professional standards of practice supports them.
 6. Provide outcome descriptors, which describe the essential learning and role performance inherent in the outcome. Programs may choose to include more descriptors to meet local context and demand. In some jurisdictions legislation may enable performance of a broader role. Since these are intended as national outcomes, each outcome has general outcome descriptors and as well some outcomes have descriptors that identify the knowledge and skills required for the performance of this broader role. In the document, an asterisk (*) will identify these outcome descriptors. It is proposed that programs should provide learners with opportunities to develop the knowledge and values to support these outcomes and all their descriptors and, where the legislation, regulations, standards, policies, and procedures permit, to practise. It is recognized, however, that for some learners their practice may occur only within the educational setting.
 7. State the essential performance components for situations that require pharmacist intervention, those in which pharmacy technicians can work independently, and those in which pharmacy technicians perform interdependent actions with pharmacists, other pharmacy technicians, and healthcare team members.

Consultation Process and Results

The purpose of these outcomes is to provide national outcomes for the development of consistent and relevant educational programs and for accrediting and examining purposes. The stakeholder consultation results have been summarized in this report. The working group endorsed the outcomes and report for presentation to the CPTEA executive. The finalized outcomes will be available to pharmacy technician educational programs, cross-country through the CPTEA website (under development). Following finalization of the outcomes, the document will be shared with the National Association of Pharmacy Regulating Authorities Canadian Council for Accreditation of Pharmacy Programs and examining bodies such as the Pharmacy Examining Board of Canada, and the Pharmacy Technician Certification Board (of Alberta)/ Pharmacy Technician Evaluation Board for their information and upon request, to other stakeholders.

The consultation took place during late October, November, and early December 2006. Consultation packages were sent electronically to 109 stakeholders through a database that was created by the working group. The database included pharmacist and pharmacy technician educators, regulatory authorities, and professional associations for pharmacists and pharmacy technicians.

The working group elected to use a “snowball” dissemination process in which stakeholders in the original database were invited to share the document with other interested stakeholders. For example, some stakeholders responded on behalf of their members by sharing the consultation package with administrative or executive members. Ontario’s career colleges’ representative body and its corresponding national body circulated the consultation package to its constituent members, ensuring that their members had the opportunity to review and respond. The

professional association for hospital pharmacists (CSHP) circulated the document to its executive members; however, one member submitted a separate response to the working group. Another responder shared the document with pharmacy technicians in the hospital pharmacy, who then responded to the outcomes' consultation. In another instance, the executive of one stakeholder group, after responding to the document circulated that response to its membership. It is recognized that by using this consultation method, some stakeholders who were not known to the working group received packages and that other stakeholders received multiple packages. Consequently this resulted in a less defined response rate.

Recognizing the work and other commitments of stakeholders, the working group sent a follow-up reminder to the individuals/organizations who received the consultation package. The response date was extended for all stakeholders and for those stakeholders who requested it, a further extension. Follow-up electronic and telephone contact and requests for information or clarification were made with key stakeholders such as educators and professional associations. The working group realized that some stakeholders did not comment on the consultation for policy or precedent reasons.

The Chair of the working group forwarded to the facilitator each response as it was received. The facilitator summarized the general comments and identified in the outcomes all specific comments, suggestions, revisions or deletions suggested by stakeholders. The stakeholder responses are confidential to the working group members except where the responder has permitted the sharing of response as part of the consultation process.

Responses were received from stakeholders across Canada, with representation from all regions except for the country's northwest and northern territories. Stakeholders from regulatory authorities, professional associations, pharmacy technician and pharmacist education, and from hospital and community sectors responded to the consultation. Responders were from larger and smaller urban or rural centres. In total, ninety-seven responders were identified as submitting separate comments or being involved in preparing group responses to the consultation.

Five regulatory bodies and the national body for pharmacy regulators responded; thirty-one college programs submitted responses, either as an individual college or as a group. Responses were received from pharmacist education bodies including entry to practice and after graduation education.

The stakeholders who responded were positive about the efforts made by the working group in producing the educational outcomes. They commended CPTEA for taking this initiative and engaging stakeholders in reviewing the outcomes, which were seen as being current as well as important for the foreseeable future.

The CAPT board of directors believes that this document is representative of a go forward, evolving set of educational outcome requirements and skills for Registered Pharmacy Technicians.
(Canadian Association for Pharmacy Technicians)

The seven outcomes are clear and concise. They effectively comprise the expected educational qualifications of a pharmacy technician presently as well as in anticipation of the progression of duties.
(Canadian Association of Pharmacy Technicians-Alberta)

This document is comprehensive concerning the outcomes.
(Canadian Council on Continuing Education in Pharmacy)

Very thorough and forward thinking.
(Nova Scotia College of Pharmacists)

We have reviewed the document from the perspective of having an expanded role for regulated pharmacy technicians in Ontario and believe that it is suitably comprehensive and appropriate for this new role.
(Ontario College of Pharmacists)

We are completely satisfied with the basis of the seven educational outcomes listed and see no need for any revisions.
(College educator, Newfoundland)

A key stakeholder identified that the document would be part of the process and background information used to create national competencies for pharmacy technicians.

It is timely to communicate to you that our Board of Directors has recently approved as an objective for NAPRA to develop professional competencies for Canadian pharmacy technicians at entry to practice. ... We appreciate that the current CPTA document has relied on upon available documents that describe such competencies for technicians, and we are certainly planning to collaborate with others to leverage the work that has been done to date. (National Association of Pharmacy Regulatory Authorities)

The response was that the outcomes overall reflected the required education and training for safe practice upon graduation (entry-to-practice). Some educator responders, while not suggesting that the outcomes be revised or removed did state that there were outcomes that would be difficult for their program to achieve. Similarly, other responders identified that while pharmacy technicians performed many outcomes already, some outcomes were beyond the current role of the pharmacy technician.

In our opinion and taken as a whole, the seven educational outcomes proposed cover the key outcomes for pharmacy technicians. Most of the educational outcomes listed are realistic and appropriate to pharmacy technician practice. Many tasks are already performed by pharmacy technicians in the province of Québec.

For the most part, the document is comprehensive and a few outcomes need to be clarified or explained... with the exceptions noted, the outcomes seem realistic and appropriate to a pharmacy technician's practice.

If we consider the bylaws and regulations specific to our province, many educational outcomes appear to be beyond the scope of practice of a pharmacy technician. (Ordre des pharmaciens du Québec)

Summarizing the overall positive response received, a pharmacist from Saskatchewan wrote, "The pharmacy technician is an integral part of the healthcare team and with these improved educational standards; they will be better able to fulfill a role that will further facilitate pharmacist's ability to obtain their professional expectations."

Several responders did raise questions about ensuring that the outcomes provide a clear role differentiation.

First and foremost, the role of pharmacy technicians is perceived as a support to pharmacists and as such would have the predominant role in health care as communicating with the pharmacist.... Technicians support the professional roles of pharmacists, but must always remember that the role is not one of similar capacity to the pharmacist in terms of patient care and patient interaction.
(Representative Board of Saskatchewan Pharmacists)

Another responder group stated that there needed to be increased differentiation in the role of the pharmacy technician related to the responsibility of the pharmacist to receive and clarify information, for example. Again, regarding the differentiation of the two roles, some responders closely scrutinized those items regarding the depth, breadth, and suitability of technician knowledge and skills requirements (for example, Outcomes 4 and 5). Discussion with pharmacy technician educators indicated that in their programs, students learn this information to better understand what and why therapeutic questions must be referred to the pharmacist as well as to have the foundation for increased role parameters and descriptions. Contrasting with concerns regarding the overlapping of roles was this responder's comment, "Good work in preparing this daunting piece of work. Pharmacy Technicians are a critical component of the system. It might be wise to consider what a pharmacy technician's role might be in the future. That is, can an assumption be made that MORE responsibilities will be conferred, roles that pharmacists currently hold? This could impact the direction and tone of the document."

When reviewing the responses, the working group recognized that responses were given in the spirit of consultation and did not imply formal endorsement of the document. The working group was clear also that addressing stakeholder comments, such as those about pharmacy technician liability, fiscal responsibility and differentiation among regulated, registered, and unregistered pharmacy technicians, was not within their mandate. The working group adhered to its mandate, which was to develop outcomes founded in strong educational principles so that programs would have a framework for graduating well-trained technicians capable of taking on roles defined by NAPRA and provincial regulatory authorities.

This summary of the results of the consultation and potential revisions was sent to the working group members for their comments, which was done through electronic means. The members independently reviewed the summary of revisions and submitted their decisions and comments to the group. Their suggestions were incorporated and the outcomes were revised according to the group's decisions; this revision was returned to the group for further comments. Following these discussions about the proposed revisions to the outcomes, the group reached consensus, which is reflected in the outcomes.

The working group has endeavoured to develop national educational outcomes that balance the varied perspectives about the learning required for the pharmacy technician role in the immediate and foreseeable future. It endorses these educational outcomes for pharmacy technician programs in Canada and its accompanying summary report for release to the CPTEA executive.

SUMMARY OF EDUCATIONAL OUTCOMES
FOR PHARMACY TECHNICIAN PROGRAMS IN CANADA

- 1.0 ASSUME LEGAL, ETHICAL, AND PROFESSIONAL RESPONSIBILITIES.

- 2.0 COMMUNICATE WITH PATIENTS, PATIENTS' AGENTS, AND HEALTHCARE PROVIDERS.

- 3.0 COLLABORATE WITH THE PHARMACIST AND MEMBERS OF THE HEALTHCARE TEAM.

- 4.0 PROCESS PRESCRIPTIONS IN COMPLIANCE WITH LEGISLATION AND ESTABLISHED POLICIES AND PROCEDURES.

- 5.0 PREPARE PHARMACEUTICAL PRODUCTS FOR RELEASE TO PATIENTS OR THEIR AGENTS, IN COMPLIANCE WITH LEGISLATION AND ESTABLISHED POLICIES AND PROCEDURES.

- 6.0 PERFORM DRUG DISTRIBUTION.

- 7.0 ASSUME MANAGEMENT, ADMINISTRATIVE, AND QUALITY ASSURANCE RESPONSIBILITIES TO ENSURE THAT PATIENTS RECEIVE QUALITY PHARMACEUTICAL PRODUCTS.

Educational outcomes for Pharmacy Technician Programs in Canada

1.0 ASSUME LEGAL, ETHICAL, AND PROFESSIONAL RESPONSIBILITIES.

Description: Pharmacy technicians shall comply with legal requirements, practise within ethical guidelines and professional standards of practice and established policies and procedures; and, demonstrate professional integrity and the ability to fulfill professional responsibilities.

- 1.1 Be accountable for personal performance and conduct in the pharmacy technician role.
- 1.2 Responds to performance appraisals, evaluations and constructive criticism to enhance professional development.
- 1.3 Take responsibility for self-evaluation and professional development.
- 1.4 Comply with legislation, professional standards, and ethical guidelines.
- 1.5 Follow established workplace standards, policies and procedures.
- 1.6 Refer therapeutic issues and questions to the pharmacist.
- 1.7 Use critical thinking and problem-solving skills in every aspect of practice.
- 1.8 Use current, relevant, and appropriate information resources.
- 1.9 Act as a resource for patients.
- 1.10 Respect patient rights to quality care, dignity, privacy, confidentiality, and to make their own decisions.
- 1.11 Respect cultural diversity.
- 1.12 Maintain confidentiality of all patient, corporate and workplace information.
- 1.13 Promote understanding of the pharmacy technician role and its relationship to the roles of other healthcare providers.
- 1.14 Promote patients' health and wellness in collaboration with other members of the pharmacy team.
- 1.15 Appreciate the role that professional associations can have in promoting the professional role of pharmacy technicians.
- 1.16 Commit to lifelong learning, continuing education, self-evaluation and professional development, as means to maintain and improve required knowledge base and performance skills.

2.0 COMMUNICATE WITH PATIENTS, PATIENTS' AGENTS, AND HEALTHCARE PROVIDERS.

Description: Pharmacy technicians communicate with groups and individuals to support optimal client care and to promote health. Communication can be with the patients or their agents, pharmacists, pharmacy technicians, pharmacy personnel, and other healthcare providers.

- 2.1 Respond within the parameters of the pharmacy technician role to patients' questions.
- 2.2 Direct patients', patients' agents', and/or other health-care providers' questions and concerns that are outside the pharmacy technician role and/or personal competency to the pharmacist.
- 2.3 Demonstrate knowledge of appropriate and effective communication and listening skills:
 - 2.3.1 Recognize facilitators of and challenges to communication.
 - 2.3.2 Use appropriate communication techniques.
 - 2.3.3 Use oral and written language and communication style appropriate to purpose, setting, and situation.
 - 2.3.4 Read, write, and speak fluently in an official Canadian language at the competency level defined by the provincial pharmacy regulatory authority.
 - 2.3.5 Use conflict management skills effectively.
 - 2.3.6 Use interpersonal skills when interacting with patients, patients' agents, and healthcare providers.
 - 2.3.7 Respect confidentiality of all communication.
- 2.4 Use established communication policies, procedures, or protocols within the pharmacy and when interacting with the patients, the patients' agents, and healthcare providers.
- 2.5 Use information sources and technology.
 - 2.5.1 Be able to operate a pharmacy software system competently.
 - 2.5.2 Be able to effectively communicate using electronic devices such as telephones and facsimiles.
- 2.6 Complete accurate, legible records and documentation including patient medication records that meet standards, policies, and procedures.
- 2.7 Follow standards, policies, and procedures related to the maintenance, security, and disposal of records.
- 2.8 Prepare business correspondence including letters and memoranda as required.
- 2.9 Inform patients or patients' agents about the technical aspects of the use of point-of-care home monitoring products, drug delivery devices, supplies and medical equipment.

3.0 COLLABORATE WITH THE PHARMACIST AND MEMBERS OF THE HEALTHCARE TEAM.

Description Pharmacy technicians, as members of the pharmacy and healthcare teams, collaborate in the preparation, release, and supply management of pharmaceutical products. Their work supports the goal of optimal patient outcomes, pharmacy practice, and inter-professional relations.

- 3.1 Participate effectively as a professional healthcare team member.
- 3.2 Establish and maintain positive working relationships.
- 3.3 Bring to the pharmacist's attention any alerts or therapeutic issues, changes and/or compliance issues and/or patients' or patients' agents questions or concerns.
- 3.4 Support patients and patients' agents need for consultation with a pharmacist.
 - 3.4.1 Recognize the need for patients and patients' agents to consult with the pharmacist about therapeutic concerns and issues.
 - 3.4.2 Inquire, prior to releasing the pharmaceutical product, whether patients or patients' agents have been offered/have received counselling by the pharmacist.
 - 3.4.3 Inform the pharmacist of patients' or their agents' need for counselling in a timely manner.
- 3.5 Collaborate with the pharmacist in the release of the pharmaceutical product to the correct patients or patients' agents.

4.0 PROCESS PRESCRIPTIONS IN COMPLIANCE WITH LEGISLATION AND ESTABLISHED POLICIES AND PROCEDURES.

Description: Pharmacy technicians, acting within legislation and established policies and procedures, support safe and effective patient care by receiving prescriptions and entering and storing information that can be easily accessed, retrieved, and provided to the appropriate healthcare provider.

- 4.1 Receive prescriptions from patients, patients' agents, or appropriate healthcare providers.
- 4.2 Prioritize and organize prescriptions as they are received.
- 4.3 Refer therapeutic questions to the pharmacist.
- 4.4 Read, understand, and use pharmaceutical, medical, laboratory, metric, imperial, household, and apothecary terms, abbreviations, and symbols.
- 4.5 Check for authenticity of prescriptions received. *
 - 4.5.1 Determine whether prescriptions meet all legal requirements, and where they do not, notify the pharmacist, and follow up using applicable policies, effective communication, and discretion.
 - 4.5.2 Use healthcare provider lists, where available, to determine current status of prescriber's privileges.
- 4.6 Verify accuracy and completeness of demographic and prescription data. *
 - 4.6.1 Review prescriptions for clarity of abbreviations, medical terminology, drug names, dosage forms, strengths, quantity, directions, prescriber, date, patient demographics, third party insurance/information availability, schedule, legislation, route, and related information.
 - 4.6.2 Recognize common trade or generic names, dosage forms, doses, quantities, and directions for use of commonly used prescription drugs.
- 4.7 Gather information to create and maintain the patient profile or health record.
 - 4.7.1 Collect and/or update patients' demographics, current health histories, allergies, use of non-prescription products, and third party information.
 - 4.7.2 Identify when there are changes in the drug and dosage, the patient profile or health record, and where provided, the diagnosis or medical condition; and notify the pharmacist.
 - 4.7.3 Use paper-based, electronic, and other resources to locate and select information.
 - 4.7.4 Confirm and update demographic, third party, and prescription data entered into the record and compare data against information received before processing the prescription.
 - 4.7.5 Recognize the names, classifications, and uses of commonly used non-prescription drugs.
- 4.8 Identify and report to the pharmacist:
 - Prescriptions that do not meet legal requirements.
 - Changes in the drug, dosage, quantity, dosage form, directions, the patient profile or health record, and where provided, the diagnosis or medical condition.
 - Known allergies, alert flags for drug allergies, drug or disease interactions, patient non-compliance or other therapeutic issues and considerations, and/or discrepancies.
- 4.9 Act within parameters of role, knowledge, and experience.
 - 4.9.1 Use understanding of knowledge of pharmacology, therapeutics, anatomy, physiology, and common medical conditions.

- 4.9.2 Correlate trade and generic names of major drug classifications and medications with their common reasons for use, adverse effects, drug interactions, and drug dosage forms, strengths, and routes.
- 4.9.3 Identify the relevance, applicability, accuracy, reliability, and validity of information received or retrieved.
- 4.9.4 Apply knowledge of quality assurance as it applies to safe medication practices.
- 4.10 Apply drug schedules, legislation, and categories including prescription, non-prescription, restricted access, and natural products.
- 4.11 Inform patients about the third-party plan coverage and payment requirements for prescription and for non-prescription products not designated as benefits.
- 4.12 Implement workplace pricing policies and pricing constraints.
- 4.13 Transfer/copy a prescription, in compliance with relevant legislation and established policies and procedures. *
- 4.14 Transfer a prescription to another pharmacy. *
 - 4.14.1 Receive the request from patients or patients' agents to transfer the prescription.
 - 4.14.2 Take appropriate action to verify that patients or patients' agents have approved/requested the transfer and document the actions taken.
 - 4.14.3 Ensure accuracy and completeness of prescriptions before transferring the prescriptions.
 - 4.14.4 Complete required documentation.
- 4.15 Receive prescription information from another pharmacy. *
 - 4.15.1 Receive/transcribe the prescriptions, gather information, verify accuracy and completeness of the demographic and prescription data, and check for authenticity.
 - 4.15.2 Complete required documentation.
- 4.16 Provide prescription information to patients and authorized recipients such as patients' agents or healthcare providers.
 - 4.16.1 Ensure the accuracy and completeness of demographic and prescription data.
 - 4.16.2 Complete required documentation.

(*) *This outcome descriptor indicates the requirement that learners have the appropriate knowledge and where the legislation, regulations, standards, policies, and procedures permit, have demonstrated performance.*

5.0 PREPARE PHARMACEUTICAL PRODUCTS FOR RELEASE TO PATIENTS OR THEIR AGENTS, IN COMPLIANCE WITH LEGISLATION AND ESTABLISHED POLICIES AND PROCEDURES.

Description: Pharmacy technicians, acting within legislation and established policies and procedures, acquire products, perform calculations, measure ingredients, and prepare sterile and non-sterile extemporaneous products and those from formulae for release to patients or their agents.

- 5.1 Ensure a clean and accessible work area; follow infection control procedures; exercise caution related to workplace hazards; and safely perform high-risk activities.
- 5.2 Recognize when to use and correctly use legislative requirements and workplace hazardous materials information when preparing products and compounds.
- 5.3 Comply with legislative requirements and established policies and procedures related to:
 - Handling of controlled substances including narcotics and targeted substances.
 - Preparing sterile pharmaceutical products.
 - Preventing and transmitting disease.
- 5.4 Use systems of measurement common to pharmacy practice.
- 5.5 Perform accurate calculations and conversions and document the results of dosage calculations and extemporaneous products.
- 5.6 Solve pharmaceutical calculations that require common and decimal fraction conversion, manipulation of ratios and proportions, and percentages.
 - 5.6.1 Calculate the amount of drug product required for a single dose, for a day, and for a full drug order.
 - 5.6.2 Calculate drug dose based on body weight, body surface area or age, and determine the amount to be released based on prescription dose, frequency, and duration of therapy.
- 5.7 Verify calculations, weights and volumes, and where necessary, confirm these with a member of the pharmacy team who is regulated and document the results.
- 5.8 Select the pharmaceutical product/compound that meets the requirements of the prescription.
- 5.9 Identify interchangeable drugs appropriately when selecting pharmaceutical products needed for patients.
- 5.10 Select clean or aseptic technique, whichever is appropriate to the task, and comply with the relevant principles, standards, and established policies and procedures.
- 5.11 Select and operate equipment, appropriate to the task, including equipment used to prepare sterile products, and maintain this equipment.
- 5.12 Prepare/compound for release pharmaceutical products including extemporaneous compounds, sterile products, intravenous admixture, parenteral nutrition, and chemotherapy.
- 5.13 Prepare a non-sterile compound, a pre-packaged pharmaceutical product, or a reconstituted pharmaceutical product.
- 5.14 Prepare pharmaceutical products.
 - 5.14.1 Apply principles of drug solubility, stability, incompatibility, contamination, and product handling.
 - 5.14.2 Resolve problems involving drug solubility, stability, incompatibility, contamination, and product handling.
 - 5.14.3 Confirm where necessary, the problem solutions and document the results.
 - 5.14.4 Prepare, reconstitute, and compound according to approved formulation instructions and label correctly.
 - 5.14.5 Count, measure, or weigh the pharmaceutical product or products.

- 5.14.6 Verify accuracy and appropriateness of ingredients and quantities including weights and volumes.
- 5.14.7 Confirm where necessary with a pharmacy professional approved by the regulatory authority that quantities and ingredients are accurate, that intermediary processes have been correctly performed; and that the documentation has been completed.
- 5.15 Check the accuracy and completeness of pharmaceutical products prepared for release.
 - 5.15.1 Confirm that a pharmacist/pharmacy intern and/or a pharmacy technician who is authorized by enabling legislation, regulatory authority, and established policies and procedures, has checked and signed off on pharmaceutical products.

Explanation

Where permitted by enabling legislation, regulatory authority, and established policies and procedures), graduates of accredited pharmacy technician programs shall have the knowledge, skills, and attitudes required to:

- (a) Check pharmaceutical products prepared by other pharmacy technicians and where permitted, other members of the pharmacy team;

And,

- (b) Ensure, having prepared a pharmaceutical product, that a registered pharmacist/pharmacy intern or another pharmacy technician, who is authorized to do so through legislation and regulatory authority, has checked the products. *

These steps ensure that pharmaceutical products have been checked twice, at minimum, during the preparation phase of the process and before release to patients or their agents.

- 5.15.2 Confirm whether the pharmacist has had the opportunity to review the prescription and the patient profile or health record, before pharmaceutical products are released.
- 5.15.3 Confirm that all appropriate regulated personnel have checked and signed off pharmaceutical products before releasing them to patients or patients' agents.
- 5.15.4 Confirm that the correct patients or patients' agents receive the correct pharmaceutical products before releasing the products.
- 5.16 Clean or dispose of, in a safe, timely manner, and by following established policies and procedures, any equipment, instruments, unused products, and/or by-products used to prepare pharmaceutical products.
- 5.17 Select the appropriate container for the pharmaceutical product.
- 5.18 Affix the appropriate label(s) to the pharmaceutical product or container.
- 5.19 Provide appropriate patient information materials, where specified by the pharmacist.

(*) *This outcome descriptor indicates the requirement that learners have the appropriate knowledge and where the legislation, regulations, standards, policies, and procedures permit, have demonstrated performance.*

6.0 PERFORM DRUG DISTRIBUTION.

Description: Pharmacy technicians contribute to drug distribution by performing the functions of acquisition, preparation, and distribution of drug products and dosage forms in a manner that ensures the safety, accuracy, and quality of supplied products. They demonstrate the technical skills that are within pharmacy technician practice, including the use of computers and other technological tools. They use the business principles, policies, and procedures of their practice settings to support the preparation and release of quality pharmaceutical products.

- 6.1 Carry out distributive functions in a manner that ensures medication safety.
- 6.2 Comply with site-specific drug-distribution policies and procedures.
- 6.3 Describe distribution systems such as individual patient prescription, unit dose, compliance dose, and how these systems are used in different practice settings.
- 6.4 Describe automated dispensing machines, unit dose packaging equipment, infusion devices, and compounding devices.
- 6.5 Maintain and efficiently manage the workplace's drug distribution system.
- 6.6 Deliver pharmaceutical products to the correct person or designated location.
- 6.7 Document drug distribution activities.
- 6.8 Manage inventory.
 - 6.8.1 Apply knowledge of inventory management (sales/usage, rate of sale/usage, turnover, days of inventory, average inventory).
 - 6.8.2 Maintain inventory control systems (minimum, maximum, order point, and order quantity).
 - 6.8.3 Order drugs and supplies and maintain appropriate inventory levels.
 - 6.8.4 Follow policies and procedures for purchasing and receiving.
 - 6.8.5 Receive, verify, and reconcile pharmacy orders.
 - 6.8.6 Package or repackage and label bulk drugs correctly.
 - 6.8.7 Follow procedures for the proper storage, handling, distribution, removal, and disposal of expired and unusable drugs.
 - 6.8.8 Ensure that products remain in date by rotating inventory, restocking, and monitoring expiry dates.
 - 6.8.9 Follow appropriate legislation and established policies and procedures to purchase, receive, store, and distribute controlled substances including narcotics, controlled drugs, and targeted substances.
- 6.9 Apply basic product display and merchandising skills.
- 6.10 Be familiar with non-pharmacological products such as point of care home monitoring products, drug delivery devices, supplies, and medical equipment.

7.0 ASSUME MANAGEMENT, ADMINISTRATIVE, AND QUALITY ASSURANCE RESPONSIBILITIES TO ENSURE THAT PATIENTS RECEIVE QUALITY PHARMACEUTICAL PRODUCTS.

Description: Pharmacy technicians have a significant role in the efficient and effective operation of a pharmacy. Their role includes knowledgeable use of electronic, technical, and technological means to enter, access and retrieve information, do reimbursement, billing, co-payment, and report writing. They contribute to the working environment, quality assurance, and quality improvement processes of the pharmacy.

- 7.1 Collaborate to ensure optimal workplace practices:
 - 7.1.1 Use time management skills to prioritize workload demands, to establish and work within realistic timeframes, and to evaluate and modify work patterns.
 - 7.1.2 Be familiar with pharmacy management issues related to workflow, staffing requirements including workload management systems, such as the Canadian Institute for Health Information (CIHI) scheduling personnel, determining and coordinating tasks, prioritizing and organizing pharmacy services, and developing operational policies.
 - 7.1.3 Identify opportunities for increased effectiveness and efficiency of pharmacy services.
 - 7.1.4 Apply knowledge of formularies, benefit lists, interchangeable products, the role of co-payments and deductible limits, and prescription quantity limitations.
 - 7.1.5 Prepare invoices as required.
- 7.2 Collaborate with the pharmacist and other healthcare professionals in reducing and preventing medication errors and discrepancies.
 - 7.2.1 Be familiar with medication safety issues inherent in all drug dispensing or distribution systems and be able to reconcile errors and discrepancies.
- 7.3 Comply with federal and provincial legislation and established standards, policies, and procedures related to the requirements for:
 - 7.3.1 Prescriptions and prescription labelling.
 - 7.3.2 Maintenance, security, and disposal of records and patient and prescription information.
 - 7.3.3 Health and safety including the handling of hazardous products and the disposing of waste.
- 7.4 Be familiar with quality control/assurance procedures.
 - 7.4.1 Participate in the development, implementation, and evaluation of quality assurance indicators.
 - 7.4.2 Perform appropriate audits on automated dispensing cabinet replenishment, packaging/repackaging of pharmaceutical products, bulk compounding products, and medication storage areas outside the dispensary.
- 7.5 Select and use technology appropriate to the task.
 - 7.5.1 Comply with guidelines for safe and correct use of automated distribution devices.
 - 7.5.2 Be familiar with routine equipment maintenance tasks and resolution of minor mechanical breakdowns.
 - 7.5.3 Demonstrate data management skills to enter, update, access, retrieve, and store electronic and/or paper-based/manual entries and records.
 - 7.5.4 Be familiar with on-line adjudication of claims, pricing, billing systems, reports, claims, and drug interaction systems.
- 7.6 Be familiar with cash and other methods of payments.
 - 7.6.1 Complete cash payments.

- 7.6.2 Explain to patients, third-party plan coverage and payment requirements for prescription and for non-prescription products, not identified as benefits.
- 7.6.3 Process cash and third party prescriptions including patient profiles, labels, auxiliary labels, pricing, receipts, and third party reimbursement claims and other billing records by both electronic and manual means.

GLOSSARY

Educational Outcome

A learned ability resulting from the integration and mobilization of a set of effectively used resources (skills, attitudes, knowledge, values). In order to graduate, learners reliably demonstrate educational outcomes (written as broad statements of knowledge, skills, and attitudes) through a variety of valid assessment strategies.

Adapted from the Canadian Council for Accreditation of Pharmacy Programs, *Accreditation Standards and Guidelines for the Baccalaureate Degree Program in Pharmacy*. 2006.

Health History

Current, relevant information about patients including their general health and any disease conditions that are currently being experienced, and those that are chronic or episodic in nature. These histories include information about current medications, both prescription and non-prescription. Patients' health histories include general demographic information such as age and gender.

Legislation

All current law that is relevant to pharmaceutical care and pharmacy practice.

Pharmaceutical Product

Any drug product purchased commercially from a pharmaceutical company or prepared in a pharmacy.

Pharmacy Technician

Healthcare providers who are graduates of accredited educational pharmacy technician programs, who have completed requirements for entry-to-practice, and who may be regulated by their provincial jurisdiction(s). Pharmacy technicians are an integral part of the healthcare team and collaborate with that team to receive and process prescriptions and to prepare and release pharmaceutical product or device in a safe and competent manner. In some jurisdictions, *pharmacy technician* is a professional title protected by legislation.

Prescription

An authorization from a practitioner to dispense a specified drug or device for use by a designated individual or animal. *Pharmacists, Pharmacy Operations and Drug Scheduling Act*, Province of British Columbia, March 1998.

Prescription Authenticity

Only a regulated health professional, acting within the limitations established by legislation, is permitted to issue prescriptions. Authentic prescriptions contain the prescriber's correct name and identifying information including professional designation and address and will have accurate and complete information about the drug and/or pharmaceutical products that are needed by patients.

Therapeutic Questions

Those questions or requests for clarification presented by patients, patients' agents, or health care providers that reflect therapeutic, prescription, health, and well-being-related issues that go beyond the basic knowledge and/or technical and/or distributive functions that are related to the pharmacy technician role. The content of and process for referring questions concerning therapy and the requirement to refer such matters to the pharmacist can be defined by legislation, or, where appropriate, by policies and procedures established by the workplace.